Lab Exercise 10– Creating an AWS RDS Instance in Terraform

Objective:

Learn how to use Terraform to create an AWS RDS instance.

Prerequisites:

•Terraform installed on your machine.
•AWS CLI configured with the necessary credentials.

Steps:

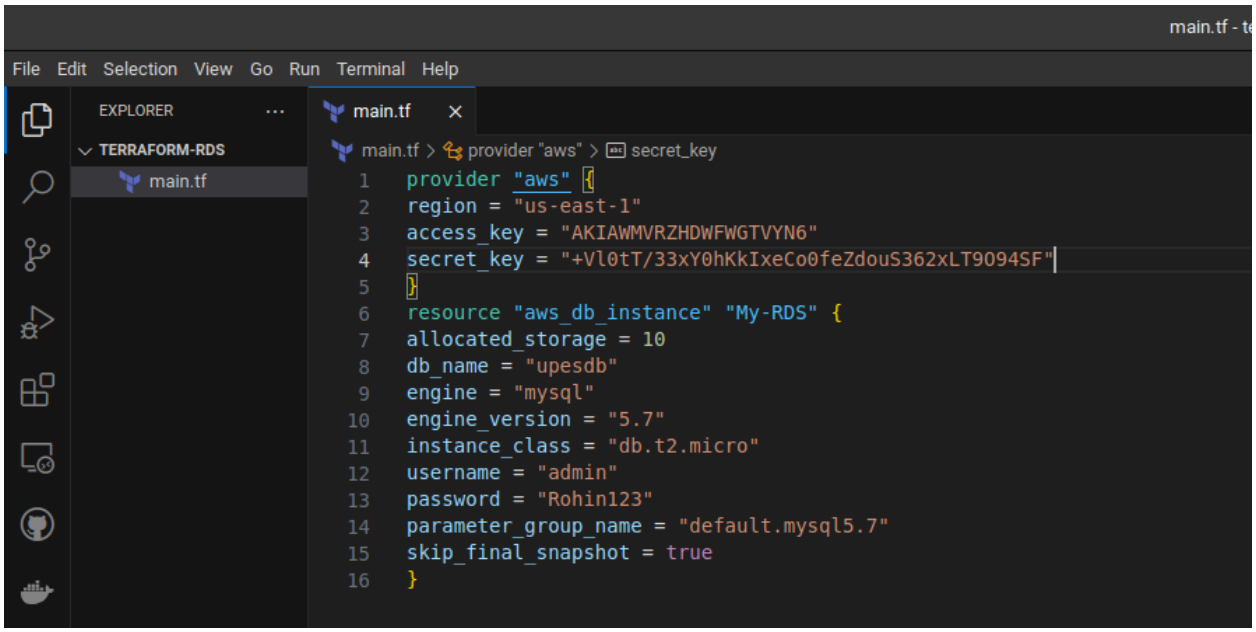
1. Create a Terraform Directory:

`mkdir terraform-rds`
`cd terraform-rds`

2. Create Terraform Configuration Files:

Create a file named main.tf:

main.tf

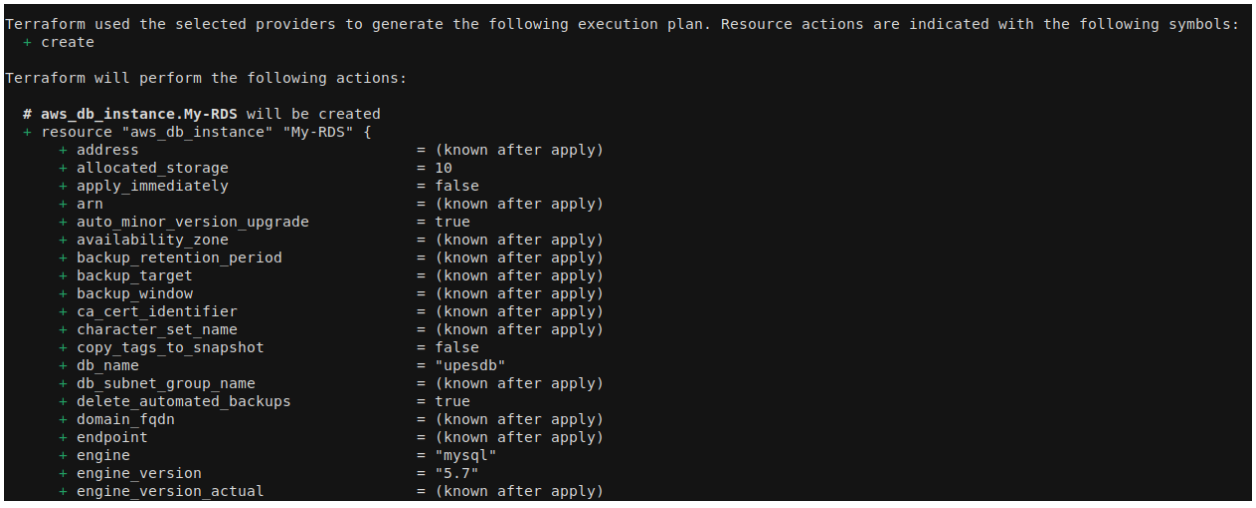


• In this configuration, we define an AWS RDS instance with specific settings, such as engine type, instance class, and security group.

3. Initialize and Apply:

• Run the following Terraform commands to initialize and apply the configuration:

`terraform init`
`terraform apply`

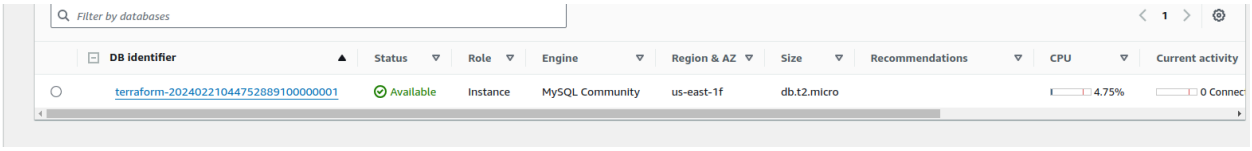


• Terraform will prompt you to confirm the creation of the RDS instance. Type yesand press Enter.

4. Verify RDS Instance in AWS Console:

•Log in to the AWS Management Console and navigate to the RDS service.
•Verify that the specified RDS instance with the specified settings has been created.

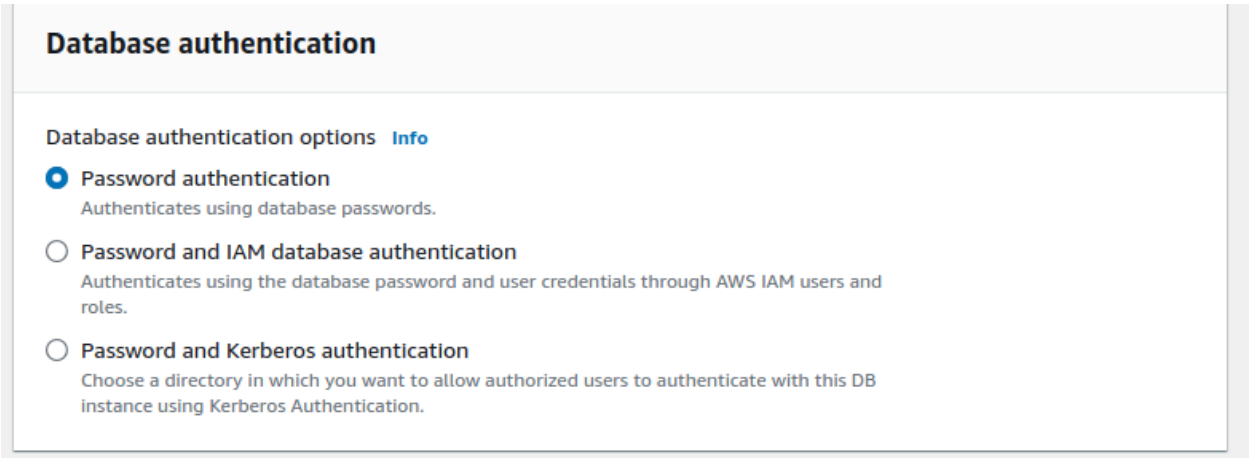
```
aws_db_instance.My-RDS: Still creating... [2m40s elapsed]
aws_db_instance.My-RDS: Still creating... [2m50s elapsed]
aws_db_instance.My-RDS: Still creating... [3m0s elapsed]
aws_db_instance.My-RDS: Still creating... [3m10s elapsed]
aws_db_instance.My-RDS: Still creating... [3m20s elapsed]
aws_db_instance.My-RDS: Still creating... [3m30s elapsed]
aws_db_instance.My-RDS: Still creating... [3m40s elapsed]
aws_db_instance.My-RDS: Still creating... [3m50s elapsed]
aws_db_instance.My-RDS: Still creating... [4m0s elapsed]
aws_db_instance.My-RDS: Still creating... [4m10s elapsed]
aws_db_instance.My-RDS: Still creating... [4m20s elapsed]
aws_db_instance.My-RDS: Still creating... [4m30s elapsed]
aws_db_instance.My-RDS: Still creating... [4m40s elapsed]
aws_db_instance.My-RDS: Still creating... [4m50s elapsed]
aws_db_instance.My-RDS: Still creating... [5m0s elapsed]
aws_db_instance.My-RDS: Still creating... [5m10s elapsed]
aws_db_instance.My-RDS: Still creating... [5m20s elapsed]
aws_db_instance.My-RDS: Creation complete after 5m27s [id=db-3R4KGIQYHTZTQA2AGE2JJCQT6U]

Apply complete! Resources: 1 added, 0 changed, 0 destroyed.
rohin@victus:~/UPES/Sem_6/SPCM/Experiment 10/terraform-rds$
```



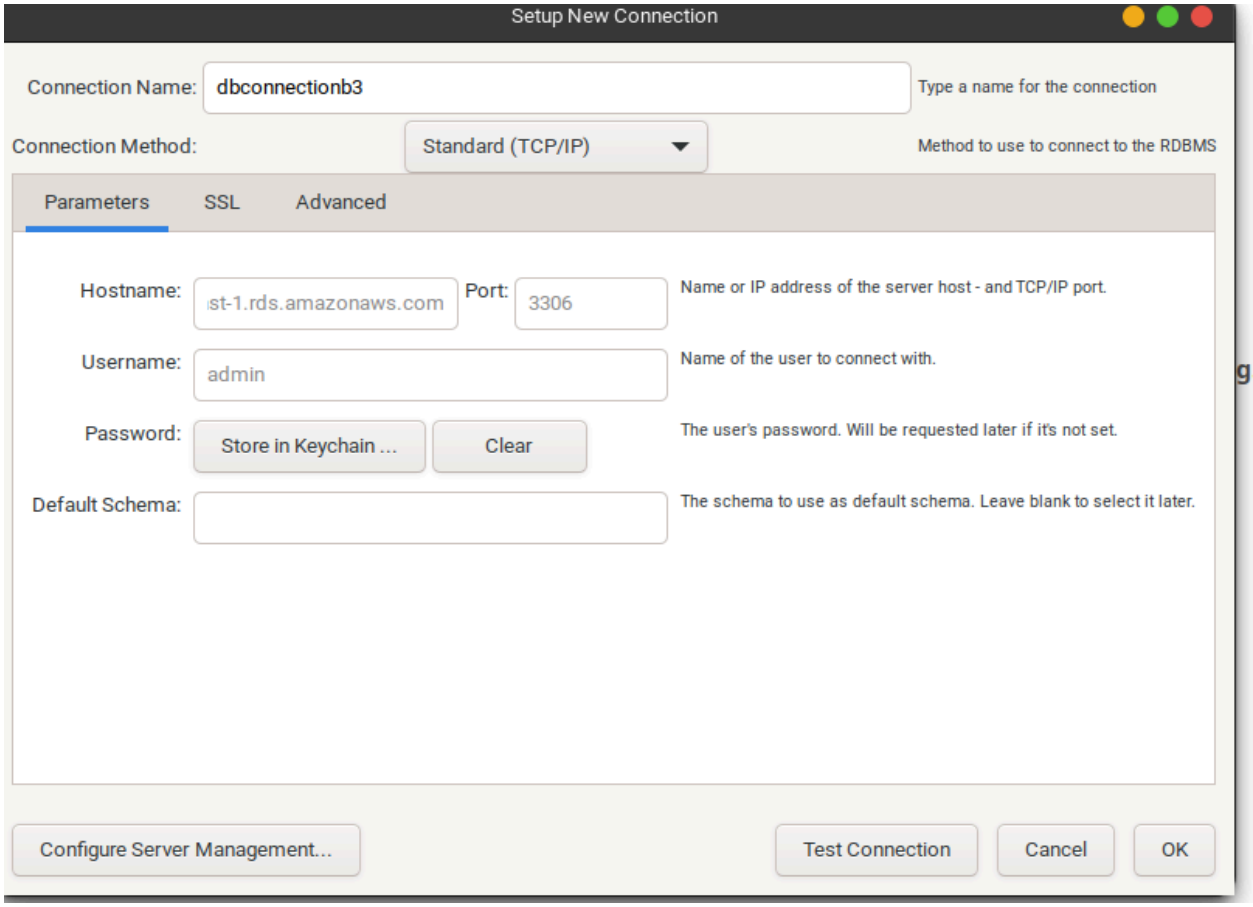
5. Update RDS Configuration:

•If you want to modify the RDS instance configuration, update the main.tf file with the desired changes.
•Rerun the terraform apply command to apply the changes:

Or manually change the public



Edit this to make is available publically to connect.



6. Clean Up:

After testing, you can clean up the RDS instance:
`terraform destroy`

Confirm the destruction by typing yes.

7. Conclusion:

This lab exercise demonstrates how to use Terraform to create an AWS RDS instance. You learned how to define RDS settings, initialize and apply the Terraform configuration, and verify the creation of the RDS instance in the AWS Management Console. Experiment with different RDS settings in the main.tf file to observe how